

Amendment under Article 19 (1)

CLAIMS

[1] Ultrahigh purity copper having a residual resistance ratio of 38,000 or greater and a purity of 8N or higher (excluding gas components of O, C, N, H, S and P).

[2] The ultrahigh purity copper according to claim 1, wherein the respective elements of O, C, N, H, S and P as gas components are 1ppm or less.

[3] (Amended) A manufacturing method of ultrahigh purity copper, wherein, upon subjecting copper to high purification with the electrolytic method, an anode and a cathode are partitioned with an anion exchange membrane, an anolyte is intermittently or continuously extracted, active carbon is poured in and agitated so as to adsorb the impurities, the impurities are removed together with the active carbon by filtration, and the obtained high purity copper electrolytic solution is intermittently or continuously introduced into the cathode side and electrolyzed.

[4] (Amended) A manufacturing method of the ultrahigh purity copper according to claim 1 or claim 2, wherein, upon subjecting copper to high purification with the electrolytic method, an anode and a cathode are partitioned with an anion exchange membrane, an anolyte is intermittently or continuously extracted, active carbon is poured in and agitated so as to adsorb the impurities, the impurities are removed together with the active carbon by filtration, and the obtained high purity copper electrolytic solution is intermittently or continuously introduced into the cathode side and electrolyzed.

STATEMENT UNDER ARTICLE 19(1)

With respect to the invention pertaining to claims 3 and 4, it has been clarified that “the impurities (in the anolyte) are removed together with the active carbon by filtration”.

5 Although Cited Document 1 (Japanese Patent Laid-Open Publication No. H8-108251) describes the use of an active carbon vessel, this is for continuously passing the anolyte containing impurities through the active carbon vessel, and the effect of removing impurities is significantly inferior in comparison to the present invention.

10 In other words, the residual resistance ratio for evaluating the purity of high purity copper is at maximum 9,000 in the Examples of Cited Document 1, whereas claim 1 of the present invention yields a ratio of 38,000 or greater, and the difference between the two is evident.

15 With the treatment method used in the invention of Cited Document 1, the adsorption performance of the active carbon vessel deteriorates with time, which is one reason the purity cannot be improved. In the present invention, since the impurities are removed together with the active carbon, there is no influence caused by the deterioration of the active carbon, and a superior effect is yielded in that extremely high purity copper can be obtained.

Accordingly, the object or purpose, means for solving the problems and effect of the present invention are clearly different from those of Cited Document 1. Therefore, the present invention could not have been easily achieved based on Cited Document 1.